NAIREST LAM EXTRA

Nearpad Continuous Pigment Dyeing
Nearpad Continuous Pigment Dyeing with NAIREST LAM EXTRA for cost-effective dyeing of various textile materials

- curtains
- bedsheeting
- tablecloths/napkins
- wallcoverings
- blankets
- camouflage (ground dyeing)
- grounds for overprinting
- apparel
Simple pad-dry-thermofix process

PAD – INFRA-RED PRE-DRY – DRY
AND POLYMERISE – FINISH

or can be overprinted by a process:
POLYMERISE - FINISH .
Padding
NEARPAD pigments are mixed with water to obtain the required depth.
40 to 70 g/l NAIREST LAM Extra can be added to control migration, depending on material, depth of shade and drying conditions.

Drying
IR pre-drying is advisable to prevent migration. If Infra Red is not available, we recommend drying in the first 2 chambers of the stenter with reduced air circulation at max. 120ºC.

Fixation
4–1 min at 160–190ºC. THEN ..... SELL
Nearchimica have tried to simplify the process by combining all the auxiliaries needed for a successful continuous pigment dyeing into a single product – NAIREST LAM Extra.

Fabric speed - 30 to 60 metres/min. depending on drying capacity of the plant.

<table>
<thead>
<tr>
<th></th>
<th>Very pale shades</th>
<th>Medium shades</th>
<th>Dark shades</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAIREST LAM EXTRA</td>
<td>50 g/l</td>
<td>60 g/l</td>
<td>70 g/l</td>
</tr>
<tr>
<td>NAIREST LT 21</td>
<td>5 g/l</td>
<td>10 g/l</td>
<td></td>
</tr>
</tbody>
</table>

Experience shows that for dyeings in very pale shades

0.5-1 g/l of Nearpad pigments

it is possible to dry and polymerise without the use of an infra-red pre-drier.
**Practical experience**

- **Fabric example:**
  - 100% cotton – 110 g/m²

- **Machine speed:** 65 m/min.
- **Kusters mangle pressure:** – 3 bar

**Recipe:**
- 6 g/l pigment,
- 60 g/l Nairest LAM Extra,
- 5 g/l Nairest LT21

**Process:**
- Dry on 7 chamber stenter
- Thermofix on Hot flue
- 2 chamber Monforts Thermex at 160°C

**Textile:**
- 100% cotton – 110 g/m²

**Temperatures:**
- 90°-90°-100°-100°-110°-120°-130°C
Properties and advantages

- Very soft handle, the fabric feels natural.
- NAIREST LAM Extra ensures excellent penetration and levelling on critical substrates (e.g. linen).
- Very economical dyeing process; no steamer or washing machine required.
- Reproducibility is excellent.
- No two-sidedness.
- Shades can be matched in minutes, no batching or steaming time.
- Dyeing liquors easy to prepare and can be re-used, economical and environmental advantage.
- Pigment selection gives high light fastness in the palest shades.
Less migration to stenter pins and clips

A major practical advantage of **NAIREST LAM EXTRA** is less migration towards the stenter pins or clips, and therefore less wastage because of darker selvedges
Examples produced by a customer in Portugal with only a stenter.
## Fastness

The process may be further streamlined, darker shades produced and fastness of dyeings increased, by combining resin finishing with the dyeing recipe.

<table>
<thead>
<tr>
<th></th>
<th>Recipe 1</th>
<th>Recipe 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairest LAM EXTRA</td>
<td>150 g/l</td>
<td>200 g/l</td>
</tr>
<tr>
<td>Nofelding LF</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Nofelding MPH</td>
<td>-</td>
<td>40</td>
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<tr>
<td>Lubrifil LV</td>
<td>-</td>
<td>40</td>
</tr>
<tr>
<td>Nearfinish MEK</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Nearfinish MNL</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Katalin CM</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Water to make up to</td>
<td>1000</td>
<td>1000</td>
</tr>
</tbody>
</table>

Nearstone Red CBF 30 g/l 30 g/l

Pad application - pick-up approx. 75%

Drying and polymerisation -160°C for 3 min.
Recipe 1

Wash fastness at 60°C
Recipe 1 = 3/4
at 90°C
Recipe 1 = 3

Recipe 2

Wash fastness at 60°C
Recipe 2 = 4
at 90°C
Recipe 2 = 3/4
Recipe 1

Rubbing fastness
Dry  3/4
Wet  3-3/4

Recipe 2

Rubbing fastness
Dry  3-3/4
Wet  3/4